

The Southwestern Travels and Plant-Collections of G. C. Nealley, 1887-1892.

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One of the more prolific botanical collectors in Texas in the late 19th century was G. C. Nealley, whose chief work was done under the auspices of the Division of Botany of the United States Department of Agriculture. In 1887 and 1888 Nealley was commissioned to pay especial attention to the grasses, particularly of western and southern Texas, and in 1891 he was authorized to concentrate on cacti. He was active between about 1885 and 1892, but little has been published in regard to his activities either before or after this period, and even his given names and the dates of his birth and death are obscure. The present paper is based upon information obtained from a series of about 275 letters written by Nealley to Dr. George Vasey when the latter was directing the collector's field work, from Nealley's field-books for 1890 and 1891, from records in the Bureau of Personnel of the Department of Agriculture, and from the few published works which bear directly or indirectly upon Nealley's collections and itineraries. The letters and field-books are now in the custody of the Smithsonian Institution. The principal published sources of information are two, including Nealley's own account of his investigations and travels of 1887, and a paper by J. M. Coulter which is useful especially in connection with the work of 1889¹. In addition to these, Coulter's *Botany of Western Texas* (Contr. U. S. Nat. Herb., volume 2) is based in no small part upon Nealley's collections and contains some specific references to them.

It appears from Nealley's correspondence with Vasey that the former came from his home in Burlington, Iowa, to the then young A. & M. College at College Station, Texas, in April, 1882. He was interested in grasses, and was able to secure board and lodging at the college in return for collecting grasses and other plants in the vicinity, and making the beginnings of a herbarium. His first letter to Vasey was in

¹Nealley, G. C. Report of an investigation of the forage plants of western Texas. U. S. D. A., *Div. Botany Bul.* 6:30-47. 1888, Coulter, John M. Upon a collection of plants made by Mr. G. C. Nealley, in the region of the Rio Grande, in Texas, from Brazos Santiago to El Paso County. *Contr. U. S. Nat. Herb.* 1:29-65. 28 Je 1890.

October, 1882; he wished to enlist the aid of a competent agrostologist in naming his grasses. From his rather desultory correspondence during the succeeding four years we know that he collected at various points in eastern and south-eastern Texas, from Sabine Pass to Houston, north to Dallas. Apparently his connection with the A. & M. College was broken sometime during this period, for after 1883 he spent more and more time in Houston, where he made his home from at least 1886 to 1891.

Nowhere in Nealley's letters are there clues to his age, although one would surmise that he was in his early twenties at the time of his first connection with the A. & M. College. His given name, as confirmed by his signature on the Oath of Office taken in 1887, and that on a formal statement written to the Commissioner of Agriculture on August 8, 1887, was Greenleaf. With these two exceptions he invariably signs himself "G. C. Nealley."

In January, 1887, Vasey offered Nealley the commission of collecting grasses in the more arid parts of Texas, especially in the Rio Grande Valley and northward into the Llano Estacado. He accepted the assignment, went to San Antonio where he procured a camping outfit, engaged a wagon, mules and driver, and left on May 2 for Uvalde. This first trip occupied five days' time, over the usual route by way of Castroville and the waterholes on the Hondo and Sabinal Rivers. He ascended the latter as far as Utopia, in northeastern Uvalde County, then retraced his steps and went directly to Uvalde. Here he visited Leona Mountain, but nowhere found good collecting conditions. He passed on, crossing the Nueces River and proceeding through Eagle Pass and Del Rio, which he reached on May 14th. Here for the first time he found the vegetation unspoiled by drought. Ascending the Rio Grande as far as Seminole Cave², or to Flanders according to his published account, he returned to Devil's River and rode northward along its western side, following the old route (which he called "the Arizona road") from San Antonio to El Paso. Details of the route and something of its history are given by S. W. Geiser in a paper on Charles Wright, in *THIS JOURNAL* vol. 4, pp. 23-32, 1935.

On May 26 Nealley made camp across the river from old

²An annotated list of Nealley's localities, principally those not readily located on modern maps, is appended to this paper.

Camp Hudson, and on May 28 he reached Juno P.O. After a day spent at Juno he set off to the westward, crossing Johnson's Run and thence crossing to the Pecos drainage, passing Howards Wells and reaching the Pecos River itself, near the mouth of Live Oak Creek, on June 2. The road led thence up the Pecos River to a stage-station called Pontoon and so on west, via Escondido Creek and spring, to Stockton, which was reached June 7. After spending a day about Stockton, Nealley began the second stage on his journey, taking the "old telegraph road," the "long route," by way of Saragossa, Toyah Creek, and Limpia Cañon, to Fort Davis, which he reached on the night of June 11.

As described in his own account, the collector made his headquarters at Fort Davis until the end of June, visiting Musquiz ("Moosky") Cañon June 13, and making a nine-day trip (June 17-25) to the "Pineries." This pine covered country about the old government sawmills in the Davis Mountains Nealley reached by way of Limpia Cañon, a route now little used. Returning to Fort Davis, he spent ten days in Musquiz Cañon and rode from there to Murphyville (now Alpine), which he reached on July 9. On the 12th he took the train to El Paso, where he spent the remainder of July and most of August. Leaving El Paso on August 27, he stopped two days at Sierra Blanca and returned to Fort Davis August 31, spent three days in Musquiz Cañon, and came again to Fort Davis on September 10.

The rest of September was spent in and around Marfa, which Nealley reached on the 14th of that month. Between the 20th and the 27th he visited Alamito and also "Medero Creek," both said to be 30 miles south of Marfa³.

On the last day of September, as set forth in the published account, Nealley left with a man and team, setting out for the Staked Plains by the Limpia Cañon—Toyah Creek route to Pecos City (Pecos), where he arrived October 6. He made thence a ten-day trip to Odessa, returning to Pecos October 17, and to Marfa, by the same route, on October 21. His next trip was from Marfa to the Chinati Mountains and Presidio;

³The name "Medero Creek" does not appear on any map to which I have had access. In 1945 Mr. C. E. McFarland of Marfa, learning of my interest in the matter, undertook to establish its identity. Suspecting that Medero, Madero, or Madera, might have been an old name for what is now called Cienega Creek, in the central Presidio County, he asked an aged Mexican of his acquaintance some questions about recent rainfall on Medero Creek. The Mexican was well acquainted with the name, but seemed surprised at Mr. McFarland's knowledge of it, and assured him for 40 or 50 years it had been called Cienega Creek.

setting out from Marfa on October 24 he reached Presidio on the 27th, and returned to Marfa on the 31st.

Apparently Nealley was not able to collect extensively in the Chinatis on this trip, for the total time elapsed was but eight days, and at least four of these must have been taken up in driving from Marfa to Presidio and return, a distance of approximately 125 miles. It would be of interest to know where he collected in the Chinati Mountains, for since his time the sheep have taken over the mountain pastures. Many species collected there by Havard in the early eighties and by Nealley a few years later, if not now actually exterminated, are now extremely difficult to find. In 1887, and for some years thereafter (as shown by the Marfa and Shafter Sheets published by the U.S. Geological Survey) the most direct route from Marfa to Shafter and Presidio, and that used by stages, was essentially the route of the modern highway, U.S. 67. Nealley noted that the distance from Marfa to the first permanent running stream, Cibolo Creek, was about 40 miles; he must then have reached the creek but a few miles above Shafter, and therefore at the southeastern extremity of the Chinati Range, which extends along a well marked NW-SE axis. Near Shafter and below it the mountains are impressively close to the passerby, but the actual distances are such that Nealley, in the small amounts of time available to him, can hardly have done more than explore hurriedly in one or two of the lower cañons on the southern side of the range. In the list of grasses appended to his published paper he mentions several times the "south side of the Chenates" or the "southern base of the Chenates," and apparently his collecting here was confined, chiefly if not entirely, to the lowlands along Cibolo Creek and about the southeastern foothills of the mountains.

The last excursion of the year 1887, as noted in the published account, began November 2 and was a three-day trip from Marfa to Paisano, Musquiz Cañon, Fort Davis, and return directly to Marfa. The rest of November was spent in Marfa; Nealley left there about the 29th, and reached Houston December 2.

1888

Our knowledge of the travels of this year is derived partly from the 50 letters which Nealley wrote to Vasey during the course of the season, and partly from the manuscript report

compiled at the end of the year and now filed with the letters. Late in May, 1888, after an abortive excursion southwest of Houston into Fort Bend County, the collector began a trip into the Panhandle. He went by train to Fort Worth, Henrietta, Wichita Falls, and Quanah, reaching the latter on June 2. His movements between June 2 and June 20 are not outlined in his letters, except that on the latter day he "returned" to Amarillo from a trip to the Canadian River, having collected at Tascosa, Field, and Sanborn. He planned at this time to visit Miami, Roberts County, but there is no evidence that the trip materialized. On June 24 he was at Armstrong, and on the following days (June 25-27) at Amarillo. Three days, including July 2, were spent at Clarendon, and two were spent in Vernon; this completed the trip into the Panhandle, Nealley returning to Fort Worth July 5, and remaining there until about July 14. He was in Houston on the 17th.

The second trip of the year 1888 was from Houston to Austin and thence westward and southwestward. The manuscript report states that Nealley left Austin September 5, "with team and teamster," going by way of "Oatmanville," Cedar Valley, and Dripping Springs, to Blanco. From Blanco he went to Fredericksburg via Stonewall, north to Llano, then southwest to Hickory Creek and Loyal Valley, and on to Mason, London, and Junction [City], "at the forks of the Llano." He reached Junction September 20, returned directly to Fredericksburg via ["K"]noxville, and reached Austin on the 28th (26th according to the manuscript report). Leaving again on October 4, he spent a day at San Marcos, a day at New Braunfels, and some time at San Antonio. From San Antonio, according to the report, he "went northwest a few miles to Kerrville and to Boerne." He reached Kerrville October 9 and mentioned, in a letter the following day, a plan to go to Boerne; this suggests the possibility that his first route out from San Antonio may have been by way of Bandera rather than through Boerne, which he apparently had not yet visited on October 10.

After the trip to Kerrville Nealley probably returned to San Antonio before beginning another excursion, but his letters do not fully cover this period. He collected in Cotulla on October 18 and reached Laredo the same day. He spent at least a week in Laredo, collecting on Zacate Creek and elsewhere, then went by rail to Pena for a day (November 2), and

thence by stage to Rio Grande City, which he reached November 3. He left on the 8th for Edinburgh, where he spent a day and a half, then taking the stage to Brownsville; the stage route went to Hidalgo and thence along the Mexican side of the Rio Grande from Reynosa to Matamoros. A few collections were made in Mexico. Nealley arrived in Brownsville November 10 and spent about two weeks in the vicinity, including a day on the coast at Point Isabel. He returned to Houston by steamer, arriving December 1.

1889

Nealley's collections of 1889, unlike those of previous years, were accompanied by specific collection-data; those of 1887 and 1888 were apparently rather extensive but, except for those that have been made the types of new species and varieties, the individual specimens are of relatively little interest today because of the lack of definite information about their source. The difference between the collection of 1889, on the one hand, and those of 1887 and 1888 on the other, is brought out in the contemporary report by J. M. Coulter, cited above. All the localities mentioned by Coulter, with two exceptions, are from Nealley's trips of 1889 as outlined in his letters. Additional evidence on this point is found in the body of Coulter's paper, in a note by George Vasey which precedes the list of grasses: "For the plants of the first two seasons no specific locality can be given, so that when no station is mentioned the general range of 'southern and southwestern Texas' is intended, and the date of collection is either 1887 or 1888."

Coulter cited 19 localities at which plants were collected in 1889, mentioning several specimens from each but not giving the year of collection in any case. In addition he cited one specimen from Clarendon, Donley County, giving the year 1888, and one specimen from Concho County, without date. Nealley's itinerary as outlined in his letters included several places from which Coulter cited no specimens; either the specimens were subsequently labelled as from the localities cited by Coulter, or no specimens were collected at these places.

Nealley left Houston March 25, 1889, going by train to Galveston and thence by steamer to Brazos Santiago. He reached Brownsville on the 28th and worked in Cameron County for more than a month, collecting "toward Rezaca," at Point Isabel and at Brazos Santiago, and spending April

27-30 at Santa Maria. He probably left Brownsville about May 10; he reached Hidalgo on the 11th, and Rio Grande City on the 15th. After 10 days here he went to Roma on May 25 and probably returned to Rio Grande about May 30. At this time he intended to go to San Antonio Viejo ("about halfway between Rio Grande City and Pena"). He left Rio Grande about June 6, was in Laredo on the 10th, and left there on the 12th for Corpus Christi, intending to go by way of Pena and San Diego. From about June 12 to July 6 he seems to have worked in and about Corpus Christi; he was at San Diego July 6-9, and probably at Pena for a few days after this. He was at San Diego until July 16, he collected at Corpus Christi on the 17th, and he went from there to San Antonio and Houston on the 18th and 19th, respectively.

On his second trip of this year, Nealley left Houston on August 1, reaching Brenham the following day, and San Angelo on the 3rd. He left San Angelo probably August 4, going directly to Ballinger, where he spent two days, and thence on a trip into Coleman County, where he spent three days in Coleman and two in Santa Anna. He was back in Ballinger on August 15, and in San Angelo the following day, to spend 10 more days before proceeding. The plant from Concho County, cited by Coulter, may have been collected on this trip to Coleman and Santa Anna.

With the Guadalupe Mountains as his objective, Nealley set out from San Angelo with a team on August 26, evidently along the old stage road which followed the Middle Fork of the Concho River. He collected a rather large series of specimens at Camp Charlotte in northwestern Irion County (consistently referred to as Ixion County by Coulter), then kept on to the westward, reaching the Horsehead Crossing of the Pecos River on September 3, and Pecos City, 65 miles upriver, on the 6th. He probably left Pecos on Monday, September 9, proceeding then generally northwestward about 40 miles to Screwbean, where he collected for two days before going on six miles to the Horseshoe Ranch to explore around the springs there. He returned to Screwbean on September 13 and on the following day started south to Toyah, apparently having abandoned his idea of reaching the Guadalupe Mountains.

Screwbean remains the most obscure of Nealley's localities, not designated on any map I have seen. According to him

it was in 1889 a sheep ranch with but a single house, located in Reeves County, 40 (or 45) miles from Pecos City, and 12 miles south of Delaware Creek on the Texas-New Mexico line. He found an interesting flora on the bluffs along the nearby creek, and near the spring. The name "Screwbean," as applied to the creek and spring, is well known in the vicinity at the present time (1945), but without a visit to the locality itself it is impracticable to attempt to fix exactly its position. The best map of the region, the Soil Map of Reeves County (1922), shows no creek or draw called Screwbean, but Mr. V. L. Cory tells me that the Four Mile Draw of this map is identical with Screwbean Draw or Creek. If this be true, then Nealley, traveling as he undoubtedly was on the old Carlsbad Road from Pecos, must have crossed the draw eight to ten miles south of the present site of Orla and about five miles from the Pecos River. Along this same road the distance between Four Mile Draw and Horsehead Draw, to the southeast, is five or six miles; this suggests the possibility that Nealley's "Horseshoe Ranch," which I have been quite unable to locate, may have been instead the "Horsehead" or "Horseheads" Ranch, on this latter watercourse.

The modern Screwbean Ranch lies partly in Reeves but mostly in Culberson County; I have not determined the site of the headquarters ranch-house in 1889, or even that the name Screwbean has been continuously applied to the same ranch. It seems most likely, however, that Nealley's collecting ground was actually in Reeves County, not too far from the Pecos-Carlsbad road, about five miles from the Pecos River, and a few miles south of Orla.

On leaving Screwbean Nealley most probably left the Pecos road at the fork approximately fifteen miles north of Toyah, which he reached on September 16 and left again on the 18th. He arrived at Fort Davis on the 23rd and worked in the vicinity until October 10, when he went to Marfa. Evidently the collections cited by Coulter as from "Limpia cañon" were made during this period at Fort Davis. In one of his letters Nealley mentions having been on Limpia Peak (now Mt. Livermore) on October 4.

Leaving Marfa October 11, Nealley set out for the Chinati Mountains, which he had visited hurriedly in 1887. He was at "The Dome" (evidently Chinati Peak) on October 18, and on the 21st he wrote Vasey from "among the mountains"

three miles from The Dome. He returned to Shafter and left about October 23 for Marathon, probably going by way of the Davis Ranch road; he reached Marathon on the 27th, after a five-day trip, and camped at Pena Colorada near the military post. On the 29th he set out for the Chisos Mountains, intending to go by way of Bone Spring and Seminole Camp, and on November 14 he returned to Marathon. Evidently his two-week trip to the Chisos Mountains was a success, for he collected a considerable number of specimens, but the details of his routes are unknown.

On November 15 the collector left Marathon and (as he himself put it) "hurried about 190 miles" to Devils River and Del Rio, which he reached on November 23 and 25, respectively. Most of the time between November 26 and December 3 he seems to have spent at Devils River; after this he returned to Del Rio (December 4) and San Antonio (December 22).

The entire collection of 1889 comprised 730 numbers, according to Nealley's letter of January 11, 1890. The collector's field-numbers, unfortunately, were suppressed by Coulter in the best botanical tradition of the time, and the entire collection was renumbered after its supposed systematic arrangement into families, species, and varieties. The numbers applied to Nealley's plants in Coulter's published paper thus pertain to those of 1887 and 1888 as well as to those of 1889, and all plants distributed under any given number are not necessarily from the same locality or even all conspecific. Some sets of the 1889 collection, including that at the National Herbarium in Washington and Coulter's set at the Chicago Natural History Museum, are numbered according to the system used in Coulter's paper and also bear the collector's field numbers.

1890

The field-book for 1890, when collated with the 45 letters written during the season, enables us to follow Nealley rather closely in his travels of this year. The spring and summer months were spent in south-central Texas. The collector left Houston by train, April 15, going first to Santa Anna, Coleman County. He visited what he called Santa Anna Peak (presumably the flat-topped limestone ridges north and northwest of the town) on April 17, went to Coleman on the 19th and to San Angelo on the 22nd. On the 26th he set out to the north toward the Colorado River, accompanied by a team and teamster. He spent a week in the vicinity of Dry Creek

("12 miles north of San Angelo") and Buffalo Draw ("a few miles south of the Colorado River, in Tom Green County"); he probably touched the Colorado somewhere in the neighborhood of Robert Lee, Coke County, and returned to San Angelo on May 3.

Leaving San Angelo on May 5, Nealley reached Paint Rock, Concho County, on the 9th, and camped by a creek about two miles to the north. He spent three days here, going then on May 12 northeastward by way of Ballinger (May 13) and Pecan Springs, Runnels County, where he spent a day, to Coleman (May 16-20) and Santa Anna (May 20-28). Leaving Santa Anna on the 28th, he traveled southeastward by way of Milburn and Richland Springs to San Saba, where he spent the first four days in June. While there he made a trip to the mouth of the San Saba River, some ten miles to the east. On June 4 he started for Cherokee and Llano, reaching the latter on June 11 after spending 4 days (June 6-10) at Baby Head, 10 miles north of his destination. He camped near Llano, June 11-18, then at Hickory Creek near House Mountain, June 19-28, returning the 28th to Llano to stay until July 10 or 12, when he began a second trip to San Angelo.

The traveler spent July 13 at Valley Spring, Llano County, reached Brady on the 17th, left there the 19th, and reached San Angelo, by way of Eden, Kickapoo, and Lipan Springs, on the 23rd. He camped near San Angelo for a week, with time out for a trip (July 26-?28) to a point 15 miles away on one of the branches of the Concho River.

On July 31 he set out for Grape Creek ("20 miles north of town") and Colorado City; he was in Colorado by August 7, but apparently he did not explain in any of his notes his whereabouts while on the way from San Angelo. He planned to leave Colorado for Big Spring on August 8, but actually arrived in Big Spring on the 11th. The field-book shows that he collected at Big Spring on August 12, about Marienfeld (now Stanton), Martin County, on the next three days, and finally between Marienfeld and Midland on the 15th. He went on to Odessa and spent at least a few days (August 16-18) there before retracing his steps by some unexplained route to Camp Charlotte, Irion County. He was at Camp Charlotte on August 28, and at Sherwood on August 30 and 31. The Library of Congress has a "Military Map of Western Texas," dated 1884, which shows a road northwestward from Camp Char-

lotte to a point west of Big Spring. This may well have been the road used by Nealley on his return to Camp Charlotte from the Odessa-Big Spring road.

From the 3rd to the 6th of September, according to the entries in the field-book, Nealley worked in southern and eastern Crockett County. By the 8th he had crossed into Val Verde County, and from the 10th to the 13th he collected about Juno. Proceeding southward, he spent several days (September 14-17) about Old Camp Hudson, then went on to Del Rio, which he reached on the 19th.

The next five weeks were spent in the vicinity of Del Rio; after about two weeks at Del Rio itself, Nealley apparently moved upriver and collected about Seminole Cave, near Flanders (October 5-9), near Comstock (October 11-14), and then near the mouth of Devils River (October 15-20). He then worked at and near Del Rio (October 20-24) and left there, evidently by rail, on the 28th. He reached Marathon the following morning, spent most of the day of the 29th at Pena Colorada, and arrived at Alpine on the 30th. He collected at Alpine on November 1, went on to Fort Davis, collected in Limpia Cañon on November 3rd, returned to Alpine on the 4th and to Del Rio and the nearby "San Felipe" Creek on the 7th. On November 16 he returned to San Antonio, terminating his season's work except for a hurried trip by way of Cotulla to Carrizo Springs (November 19-20) and Laredo (November 24-26). On this trip he found most things too dry to be worth collecting, and apparently he obtained but a single number, that taken at Carrizo Springs on November 19. He returned to San Antonio and Houston (November 30).

Nealley stated in a letter that the collections of 1890 comprised 334 numbers. The field-book includes nos. 19-334, inclusive, arranged more or less chronologically.

1891

The work of 1891 took Nealley outside the borders of Texas in his search for cacti. He left Houston March 23, spent two days at Corpus Christi, reached Rio Grande City on March 28, by stage from Pena. He visited Roma about April 1, returned to Rio Grande, and on April 3 took the Mexican stage to Camargo and the train to Matamoros, reaching Brownsville on the 4th. He spent more than a week here, visiting Brazos Santiago April 9-11 and leaving for Alice and a three-day stay at San Diego about April 15. He reached Corpus

Christi on the 21st, and left about the 29th for San Diego, which he reached on the 30th. Leaving there May 5, he spent a day in Pena and another in Laredo, reached San Antonio May 8 and left for El Paso on the 14th. He stopped over a day at Pena Colorada and two days at Sierra Blanca, reaching El Paso on May 18.

Probably only about 33 collections were made during this initial period. The field-book of 1891 is less satisfactory than that of 1890, the entries being somewhat less full, but the general sequence can be followed without much difficulty, especially with the aid of 31 letters written during the season.

From El Paso Nealley's trail seems to have led immediately into New Mexico. He left for Las Cruces about May 21, then apparently returned to El Paso, but left again June 2, going to Silver City, New Mexico, on June 5. He planned to go to Pinos Altos, then to return to El Paso after a trip to "Rincon and Ft. Seldon N. of Las Cruces." Nos. 43-46 are from Pinos Altos, but the field-book does not indicate that the rest of the plan was carried out. Some material was collected near El Paso about June 25, but nothing is definitely known of the collector's movements between June 5, when he left El Paso for Silver City, and June 28, when he was again in El Paso. The following day, June 29, he left the city, spending most of the day of the 30th in Deming, New Mexico, and reaching Lordsburg the same night. On July 3 he visited Steins Pass (about twenty miles west of Lordsburg), and on the 4th he left for Tucson, Arizona, accompanied by a Mr. Evans.

But few specimens were collected at Tucson. Nealley planned to visit Maricopa, Casa Grande, Gila Bend, and Yuma. So far as can be ascertained from his letters, he actually left Tucson by stage on July 22, reached Mammoth on the 24th, spent two days at Oracle (12 miles below Mammoth), and returned to Tucson July 29. About August 3 he left Tucson on a 10-day trip to the Rincon Mountains, about 30 miles to the eastward. Collecting in the Rincons was so favorable that he made a second excursion there about the last of August, and spent the entire month of September in the mountains, returning to Tucson October 5. About 200 numbers of plants were obtained in the Rincons, out of a total of 284 for the entire season's collecting.

After completing his work in the Rincon Mountains, Nealley made a second trip, this time of a week's duration, to

Mammoth and Oracle, coming again to Tucson on October 16. About November 1 he went to Nogales, intending to visit Quijotoa, Arivaca, and other points, but was disappointed by the prevailing drought and probably returned directly to Tucson.

In addition to plants collected at the above localities in Arizona, the field-book shows that a few collections were made at Bowie, presumably along the railroad route, in "June" and July.

In returning to Texas from Arizona, Nealley left Tucson about November 9, spent a day at El Paso, a day at Sierra Blanca and one at Sanderson, finding severe drought everywhere. He reached Del Rio on November 14, and soon returned to San Antonio and Houston. It was apparently about this time that his place of residence was changed from Houston to San Antonio.

1892

In this year, the last in which Nealley was engaged as a collector by the Department of Agriculture, he seems to have travelled mostly by train. From San Antonio he went to Corpus Christi on March 14, where apparently he stayed more than a week; he was in Houston March 26-28, reached Victoria on the 30th, probably went to Beeville and Portland (San Patricio County), visited San Diego, was in Corpus Christi again on April 12, was in Houston April 16-18, spent a day (April 19?) in "Coraigan" (i.e., Corrigan, Polk County), went thence on April 20 to Colmesneil, Tyler County. He was again in Houston on April 27. He went from Houston to Palestine on May 13, after spending a day at Hallettsville and some time in Beaumont and in Hardin County. He probably spent about five days in Palestine at this time. He made a day's trip from Palestine to Trinity, traveled through Tyler and Hardin Counties to reach Beaumont on June 2, and was in Houston on June 3.

Leaving again for southern Texas, he spent 2 days at Corpus Christi, reached San Diego on June 11, went to Pena and San Antonio, was in San Antonio June 23, made a trip to Llano about the end of June, returned to Houston July 9, probably went to Galveston about July 16.

About the end of July Nealley went again to San Antonio, spent some time in Lakeview, one of the suburbs, then went about August 3 to San Marcos, next to Santa Anna, and back

to San Antonio on August 17. He left again on August 20, visited Laredo and spent a day in Pena, reached San Diego about the 28th and spent five days there and one day in Corpus Christi, returning to San Antonio about September 6.

For his final trip of this year Nealley left San Antonio September 9, spent the 10th and 11th at Del Rio and a day at Sanderson, reaching Marfa on the 13th. He planned to go to Fort Davis on the 15th. He made a trip from Marfa to Alamito, Medero Creek, San Jacinto Peak, Shafter, the Chinati Mountains, and Presidio, returning to Marfa on October 5. He left Marfa October 13, spent a day in Alpine, started on the 17th for Painted Cave (said by him to be 50 miles west of Del Rio), and reached Del Rio on October 21. He worked in the vicinity of Del Rio and Comstock until at least November 2. He reached San Antonio November 10. The number of collections made in 1892 is unknown.

1893

In 1893 there are but eight of Nealley's letters, the correspondence terminating with the sudden death of Vasey on March 4. Nealley announced his intention not to act as agent for the Department of Agriculture this year, saying that he wished to devote his time to collecting certain things in which he had a personal interest. About the middle of February he moved his place of residence to San Diego, Duval County, where he had been planning for some time to lease some land and perhaps to establish a small nursery. He made at least one long trip during this year, for in October he wrote to F. V. Coville from El Paso, having been a month before at his old collecting-ground at Screwbean, Reeves County.

Annotated List of Localities

Most of the routes followed by Nealley and the places visited by him may be located on the topographic sheets published by the United States Geological Survey. Much of the country between San Antonio and El Paso was surveyed between 1880 and 1900, and maps are available for many areas. (It may be said parenthetically that most maps published before 1890 of the area now comprising Presidio and Brewster Counties were highly untrustworthy, and some were inaccurate to the point of naiveté.) In addition to the topographic sheets, valuable supplementary information about the location of roads and small settlements may be obtained

from the Soil Survey maps published by the Bureau of Soils (later Bureau of Chemistry and Soils), of the U.S. Department of Agriculture. Most useful in the present connection are the Reeves County Sheet (1922; 2 mi. to 1 inch), and the Reconnaissance Surveys of the Trans-Pecos Area, Texas (1928; 6 mi. to 1 inch), South Central Texas (1913; 6 mi. to 1 inch), and South Texas (1909; 6 mi. to 1 inch). Most of the above are generally available in good libraries.

Other maps, equally useful but less generally available, are listed below; most of these were compiled from the records of the Texas Land Office and are copyrighted maps in the Library of Congress collections:

Colton's New Map of the State of Texas . . . compiled from the Official County Maps of the General Land Office, etc. New York, 1872. One inch = 24 miles. (Also same title and scale, New York, 1882.)

Map of the State of Texas, compiled from the records on file in the General Land Office of the State . . . by Chas. W. Pressler and A. B. Langermann. Austin, 1879. One inch = 8 miles.

Rand, McNally & Co.'s New Enlarged Scale Railroad and County Map of Texas. Copyright, July 3, 1891. One inch = about 15 miles. (Also same title and scale, copyright June 9, 1893.)

Military Map of Western Texas. U.S. War Department, 1884. One inch = about 15 miles.

Localities not found in the following list have been excluded because of my belief that they are readily located on modern and easily available maps. These comprise not only the larger cities, but also smaller places which are nevertheless indicated on ordinary roadmaps and in modern atlases (e.g. Comstock, Roma, Stonewall, and Toyah). There remains a considerable nucleus made up of names of hills, streams, and other physiographic features, places which have passed out of existence or of which the names have been changed, and places which are difficult to locate because of their small size or because of changes in county boundaries since Nealley's time. Nealley's work in southern, southwestern, and far-western Texas was done at a time when political boundaries were not well fixed, and before all place-names were established by permanent settlements. He was, in fact, one of the first if not the very first collector to work the region after it

was possible to travel extensively by rail. The line of the Southern Pacific Railroad between El Paso and San Antonio was completed in 1882-1883, and immediately thereafter a series of new place-names appeared on the maps along the right of way. Except along the railroads, however, the place-names of 1887-1892 (the period of Nealley's activity) were those of the old frontier trails and roads to the West. In many instances these roads do not follow the modern highways (or more precisely, the highways have left the old routes), and hamlets and stations along the old roads have in great part now disappeared.

Following each name in the list below is given its location as far as known, including the name of the modern county. Some references are made to maps and other sources:

Babyhead. Northern Llano County. Pressler & Langermann, 1879; USGS, Llano Quadrangle, 1904. A mountain and small settlement, also spelled Baby Head.

Bone Spring. Central Brewster County. About 4 miles south of Persimmon Gap on the Marathon-Boquillas road. USGS, Bone Spring Quadrangle, 1920.

Brazos Santiago. Cameron County. A post-office at the north end of Brazos Island, according to Pressler & Langermann, 1879. The name was originally applied to the strait or pass between Padre Island and Brazos Island.

Camp Charlotte. Northwestern Irion County. A way-station on the Middle Branch of the Concho River, on the road between Fort Concho and the Horsehead Crossing of the Pecos. Military Map, 1884; Rand McNally, 1891, 1893.

Camp Hudson. Central Val Verde County. On the Devils River just south of the 30th parallel. Colton, 1872.

Davis Ranch. Presidio County. On the road between Shafter and Marathon, approximately east of the former and almost south of Marfa. Military Map, 1884.

Edinburg. Hidalgo County. Not the modern town of the same name, but on the Rio Grande approximately opposite Reynosa (Pressler & Langermann, 1879). Hidalgo is not shown by Pressler & Langermann, but is indicated by Colton (1882) as a post office about 2 miles west of Edinburg. Rand, McNally (1891, 1893) indicate a single settlement, as "Hidalgo or Edinburgh."

Escondido Creek and Spring. Pecos County. From its source

a few miles east of Fort Stockton the creek ran generally eastward toward the Pecos River, paralleling the route between the Pontoon Crossing and Fort Stockton.

Field. Western Potter County. A railroad station between Amarillo and Tascosa. Rand, McNally, 1891.

Flanders. ValVerde County. On the railroad about five miles, airline, west of Comstock. Rand, McNally, 1891.

Hickory Creek. Southwestern Llano County. Flows generally northeastward from House Mountain. USGS, Llano Quadrangle, 1904.

Hidalgo. Hidalgo County. See Edinburgh.

Horsehead Crossing (of the Pecos River). Crane and Pecos Counties. The old crossing on the route between Fort Concho and Fort Stockton, about twenty miles above where the modern highway (US 67) now crosses at Girvin.

Horseshoe Ranch. ?Reeves County. See discussion, page 77.

House Mountain. Llano County. See Hickory Creek.

Howards (or Howard) *Well* (or Wells, or Spring). Southwestern Crockett County. See Juno.

Johnsons Run (or Creek) Crockett and ValVerde Counties. See Juno.

Juno. Northern ValVerde County. The old road from San Antonio to El Paso, after crossing Devils River at Camp Hudson, crossed again near Juno at Johnsons Run, an intermittent tributary which it followed generally northward before crossing to the Pecos drainage below Howards Well; the road then followed Howards Creek northward before returning to the Pecos itself at Fort Lancaster, about at the mouth of Live Oak Creek. Some old maps (e.g. Colton, 1872) show "Howards Spr." at the head of Devils River instead of in the Pecos drainage. Reconnaissance Soil Survey, South Central Texas Sheet, 1913.

Kickapoo [Spring]. Southeast corner of Tom Green County. USGS, San Angelo Sheet, 1892.

Knoxville. Southeastern Kimble County. This was Nealley's corruption of Noxville. USGS, Kerrville Sheet, 1894.

Leona Mountain. Uvalde County. Not located, but doubtless Mt. Inge.

Limpia Cañon. Jeff Davis County. Nealley collected in the cañon of Limpia Creek not only above Fort Davis, between that place and the Davis Mountains, but also in the lower cañon, now followed by the highway to Balmorhea.

Lipan Spring. Tom Green County, southeast of San Angelo. USGS, San Angelo Sheet, 1892.

Live Oak Creek. Western Crockett County. See Juno.

Marienfeld. Southeastern Martin County. Now called Stanton. It appeared as Marienfeld on the Rand, McNally map of 1891, but as Stanton on the edition of 1893.

Milburn. Northwestern corner of San Saba County. Pressler & Langermann, 1879; USGS, Brady Sheet, 1894.

Oatmanville. Not located, but from Nealley's account evidently in Travis County, and perhaps merely a corruption of Oak Hill.

Painted Cave. Val Verde County. Said by Nealley to be 50 miles west of Del Rio. The Rand McNally map of 1891 shows it near the railroad, about five miles west of Flanders, not far from the Pecos River.

Paisano. Northeastern Presidio County, about 10 miles southwest of Alpine. Here is the well known Paisano Pass, through which the railroad now runs. USGS, Alpine Sheet, 1895.

Pecan Springs. Northeastern Runnels County. Pressler & Langermann, 1879.

Pena. Jim Hogg County. In Nealley's time a station on the railroad between Laredo and San Diego; now Hebbronville. Appears as Pena on Colton's map of 1882 and Rand, McNally's maps as late as 1895, but as Hebbronville in the Century Atlas of 1897.

Pena Colorado. Brewster County. An old military post about three miles southwest of Marathon. The name is variously spelled; it appears as given above on the Monument Spring Quadrangle (USGS, 1921). It is spelled Pena Colorado on the map of the Reconnaissance Soil Survey of Trans-Pecos Texas (1928) and in Geiser's paper "Ghost-Towns and Lost-Towns of Texas, 1840-1880" (Tex. Geog. Mag. 8: 15. 1944). It is also spelled Pene Colorado, and on the Military Map of Western Texas (1884) Peña Colorado.

Point Isabel. Southeastern Cameron County. Colton, 1872; a post office in 1879, according to Pressler & Langermann. Sometimes referred to as Port Isabel.

Pontoon. Northwestern Crockett County. The station at "Pontoon Bridge" or "Pontoon Crossing" of the Pecos River, at 31° north latitude and 102° west longitude, essen-

- tially where Texas route 137 now crosses north of Iraan. Rand, McNalley, 1891; Reconnaissance Soil Survey, South Central Texas Sheet, 1913.
- Rezaca*. Cameron County. Evidently Resaca [or Rezaca] de la Palma, the site of the noted battlefield; about 5 miles northwest of Brownsville, according to Colton (1882).
- San Antonio Viejo*. Southwestern Jim Hogg County. A ranch, nearly north of Rio Grande City, and a few miles north of Cuevitas. Pressler & Langermann, 1879; Reconnaissance Soil Survey, South Texas Sheet, 1909.
- Sanborn*. Potter County. A railroad station about 10 miles northwest of Amarillo. Rand, McNally, 1891.
- Santa Maria*. Southwestern Cameron County. Near the Rio Grande about 25 miles northwest of Brownsville. Colton, 1882.
- Saragosa* [Saragossa]. Reeves County. The "long route" (to Fort Davis) mentioned by Nealley went from Fort Stockton west a few miles to Leon Spring, then almost directly to Saragosa and thence southward. The road is shown on Sketch No. VII, of a series of "Surveys Western Texas 1883-4," in the Library of Congress.
- Screwbean*. Reeves County. See pages 76ff for discussion.
- Seminole Camp*. Not located; presumably Brewster County; see page 78.
- Seminole Cave*. ValVerde County. Seven miles west of Comstock, according to Nealley.

A Supplementary Gazetteer of Texas, 1875-1895

Bessie Teeple Geiser

(With a Foreword by Dr. L. H. Shinnery)

FOREWORD

Sixty-five years ago the compilers of the great *Index Kewensis*, a list of all the species of flowering plants which had been named up to that time, were content to state for most of those from the North American continent, merely that they were inhabitants of "Am. Bor." Texas was signally honored, being adjudged of such great botanical interest that it was mentioned on a par with "Am. Bor." as the native place of hundreds of plants. But even this relative exactitude is far